

2001
Summary of Indiana
Solid Waste Facility Data

SOLID WASTE



Indiana Department of Environmental Management
Office of Land Quality

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

The ***2001 Summary of Indiana Solid Waste Facility*** Data is the tenth in the series of annual reports of solid waste facility activities in Indiana. The information is compiled from solid waste facility quarterly reports submitted to the Indiana Department of Environmental Management (IDEM). The IDEM Office of Land Quality publishes the ***2001 Summary of Indiana Solid Waste Facility Data*** to provide information to the public about solid waste processing and disposal activities in Indiana. This report was prepared by staff of the Facilities Data Analysis Section.

Contributors:

Michelle Weddle
Richard Worth

Project Coordinator:

Michelle Weddle

Cover Design:

Oscar Mesa

For additional information, please call the IDEM Office of Land Quality at (317) 233-4624.

Table of Contents

	Page
INTRODUCTION	4
SOLID WASTE DATA FRAMEWORK	6
– Solid Waste Types	6
– Solid Waste Facilities	6
– Origin of Waste	10
SOLID WASTE LAND DISPOSAL FACILITIES	13
– Municipal Solid Waste Landfills	15
– Other Solid Waste Land Disposal Facilities	19
SOLID WASTE PROCESSING FACILITIES	23
– Solid Waste Incinerators	24
– Transfer Stations	25
– Other Processing Facilities	26
OUT-OF-STATE WASTE	27
2001 SOLID WASTE FACILITY PROFILES (Ordered alphabetically by county location of facility)	P1

List of Figures

	Page		Page
Figure 1: Current Solid Waste Categories for Facility Quarterly Reports	6	Figure 11: Annual Disposal at Construction-Demolition Sites by Waste Origin	19
Figure 2: Municipal Solid Waste Landfill Ownership by Percent During 2001	10	Figure 12: Annual Disposal at Restricted Waste Sites by Waste Type	20
Figure 3: Waste Disposal Pathways	10	Figure 13: Transfer Station Waste Management	25
Figure 4: Disposal of Solid Waste by Landfill Type During 2001	13	Figure 14: Destination of Waste Sent from Transfer Stations During 2001	26
Figure 5: Disposal of Solid Waste by Waste Type During 2001	13	Figure 15: Annual Waste Imports by Region of Origin	27
Figure 6: Annual Disposal at All Solid Waste Land Disposal Facilities	14	Figure 16: Annual Waste Imports by State of Origin	29
Figure 7: Disposal of Solid Waste at Municipal Solid Waste Landfills by Waste Type During 2001	15	Figure 17: Annual Amount of Out-of-State Waste Received by Solid Waste Facilities	30
Figure 8: Annual Disposal at Municipal Solid Waste Landfills	16	Figure 18: Distribution of Disposal of Out-of-State Waste Disposed at Indiana Solid Waste Facilities During 2001	32
Figure 9: Annual Disposal at Municipal Solid Waste Landfills by Waste Origin	16	Figure 19: Origin of Waste Disposed and Incinerated in Indiana During 2001	35
Figure 10: Distribution of Disposal at Municipal Solid Waste Landfills During 2001	17		

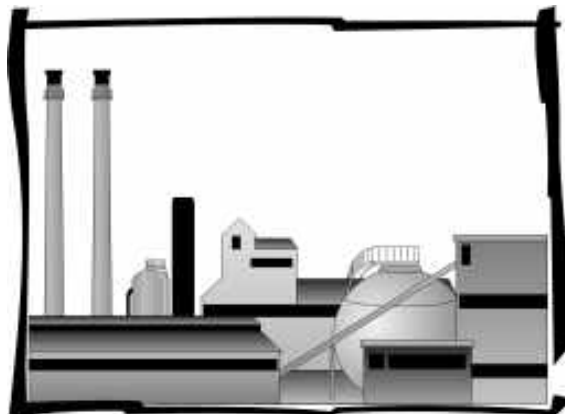
List of Tables

	Page		Page
Table 1: Sources of Solid Waste Data	5	Table 12: Total Disposal at Non-municipal Solid Waste Landfills During 2001	22
Table 2: Solid Waste Classification Guide	7	Table 13: Solid Waste Received by Processing Facilities by Waste Type During 2001	23
Table 3: Number of Permitted Solid Waste Facilities that Operating During 2001	8	Table 14: Annual Amount of Solid Waste Received by Processing Facility Type and Waste Type	23
Table 4: Types of Landfills and Incinerators	8	Table 15: Total Waste Received by Incinerators During 2001	24
Table 5: Waste Tons Disposed in Indiana, by Estimated County of Origin	11	Table 16: Destination of Waste Sent from Transfer Stations for Final Disposal	25
Table 6: Disposal of Solid Waste by Landfill Type and Waste Type During 2001	13	Table 17: Out-of-State Waste Received During 2001	28
Table 7: Annual Disposal at Solid Waste Land Disposal Facilities by Landfill Type and Waste Type (includes waste imports to Indiana)	14	Table 18: Amount of Out-of-State Waste Received by Solid Waste Facilities by Facility Type and Waste Type During 2001	29
Table 8: Annual Disposal at Solid Waste Land Disposal Facilities by Landfill Type and Waste Type (excludes direct imports to Indiana landfills)	15	Table 19: Annual Amount of Out-of-State Waste Received by Solid Waste Facilities by Facility Type and Waste Type	31
Table 9: Total Disposal at Municipal Solid Waste Landfills During 2001	18	Table 20: Total Out-of-State Waste Received by Facility During 2001	33
Table 10: Total Disposal at Construction-Demolition Sites During 2001	20	Table 21: Out-of-State Waste Received by Indiana Solid Waste Facilities During 2001	34
Table 11: Total Disposal at Restricted Waste Sites During 2001	21		

Introduction

This report is the tenth annual summary of Indiana's solid waste facility data. It is intended to provide information about Indiana's solid waste management. The report provides solid waste facility information for 2001 and contains:

- a summary of existing solid waste facilities;
- a summary of the amount, origin, and types of solid waste received at land disposal facilities and processing facilities; and
- a summary of out-of-state waste imports.



This report was compiled from the solid waste facility quarterly reports submitted to IDEM by owners and operators of facilities that manage non-hazardous solid waste. Rules passed by the Solid Waste Management Board require all solid waste land disposal facilities (329 IAC 10-14-1) and processing facilities (329 IAC 11-14-1) to submit information to IDEM on a quarterly basis describing the origin, type, and amount of solid waste received by these facilities. Processing facilities must also report the amounts and destinations of waste transported off-site for recovery or disposal. Reports submitted to IDEM are on file and available for public review.

This report emphasizes graphs, tables, and figures. Discussion text is included only as necessary to guide the reader through the report and to provide a context for the graphs and tables. Several sections that were included in previous releases of this report are not present in this year's report. Much of the information in these sections has been duplicated from year to year and/or is available in other IDEM publications. Table 1 shows how to obtain this information in addition to other information that may interest readers of this report.

Previous reports summarized municipal solid waste (MSW) landfill capacity from amounts reported by facilities or from estimates made by IDEM. Beginning in 1996, landfills were required by regulation to submit con-


tour maps annually based on surveys conducted between October 1 and December 31 of each year. IDEM uses this information to calculate accurate and precise totals for both air-space and waste capacity. See Table 1 for the IDEM contact for MSW landfill capacity data for 1997 through 2001.

Prior to 1996, facilities reported non-municipal waste only as construction-demolition waste and special/other waste. In

1996, IDEM added categories for Special Waste, which included foundry wastes and other special wastes, for Coal Ash, and for Flue Gas Desulfurization by-products. Legislation enacted since the beginning of the period covered by the *2000 Summary of Indiana Solid Waste Facility Data* report eliminated Special Waste as a classification. To reflect this, Foundry Wastes, which was previously under Special Waste, is retained as a separate category under its own name. Other special wastes is no longer a separate sub-category. Any waste previously classified as special waste or industrial waste that does not fit any of the existing available categories is reported now under the category Other Waste. Coal Ash and Flue Gas Desulfurization are retained as classifications. Because of the changes in classification types through the years covered by the *2001 Summary of Indiana Solid Waste Facility Data* report, information for disposal by waste type by year will continue to be grouped as municipal waste and non-municipal waste to make comparisons among years meaningful.

Table 1.
Sources of Solid Waste Data

Information Available	Description	Contact
Land disposal facility quarterly reports	Origin, type, and tonnage of solid waste received. *	Michelle Weddle (317) 233-4624
Processing facility quarterly reports	Origin, type, and tonnage of solid waste received and destination information. *	Michelle Weddle (317) 233-4624
Composting facility annual reports	Type and volume of compost received and processed. *	Michelle Weddle (317) 233-4624
Transfer station inspection annual reports	Results from inspections of incoming waste.	Marcia Earl
Waste tire storage facility annual reports	On-site summary of incoming and outgoing tires.	Steve Poe (317) 308-3112
Municipal waste transportation manifests	Waste generation, transportation, and disposal information that accompanies waste from processing facilities for final disposal.	Debby Baker (317) 232-0066 or Richard Worth (317) 233-5156
Indiana MSW landfill disposal capacity reports	Remaining air space and disposal space at Indiana land disposal facilities.	Richard Worth (317) 233-5156
Solid waste management fee reports (IDOR)	Monthly report showing fees collected for solid waste disposed at final disposal facilities.	Rachel Ballard (317) 615-2589
Solid waste disposal fee reports (IDEM)	Semi-annual report showing fees collected for the disposal of specific types of solid waste.	Pat Beeler (317) 233-0408
Solid waste management district annual reports	Information on district programs and activities.	Vacant (317) 232-8172
Permitted solid waste facilities list	List of permitted solid waste facilities in Indiana. *	Debby Baker (317) 232-0066
MSW Haulers List	List of registered MSW transporters.	Debby Baker (317) 232-0066

* Online search and/or data download available at:  <http://www.IN.gov/idem/land/sw/index.html>

Solid Waste Data Framework

Several factors must be considered when discussing solid waste disposal in Indiana:

- type and quantity of the waste disposed;
- type and ownership of the facility that received the waste; and
- origin of the waste received.

The following pages give an overview of key concepts necessary for understanding solid waste disposal data.

Solid Waste Types

Solid waste can be categorized broadly as either hazardous waste or non-hazardous waste. This report deals only with **non-hazardous waste**, which can be further broken down into municipal solid waste and all other non-hazardous solid waste. **Municipal solid waste**, or MSW, is any solid waste generated by community activities or the operation of residential or commercial establishments (329 IAC 10-2-115). Prior to 1996, non-hazardous waste that is not MSW was subdivided into **construction-demolition debris**, **special waste**, and **other non-municipal** waste types. In 1996, the categories **foundry**, **coal ash**, and **flue gas desulphurization (FGD) waste** were added to provide more detailed waste information. Legislation enacted since the beginning of the period covered by the *2000 Summary of Indiana Solid Waste Facility Data* report eliminated Special Waste as a classification, as discussed in the **Introduction** to this report. Figure 1 shows the current solid waste categories. Table 2 provides more detailed explanations of these waste types.

Solid Waste Facilities

Solid waste facilities in Indiana fall into two broad permit categories: land disposal facilities and processing facilities. **Land disposal facilities** are subdivided further into four types: municipal solid waste (MSW) landfills, construction-demolition sites, restricted waste sites (types 1 through 4), and non-municipal solid waste landfills. **Solid waste processing facilities** permitted by IDEM can be incinerators, transfer stations, solid waste balers, solid waste shredders, resource recovery systems, or garbage grinding facilities (329 IAC 11-2-43). Table 3 summarizes the number of permitted solid waste facilities that submitted data reports to IDEM during 2001. Table 4 describes the types of waste each facility type may receive.

● Land Disposal Facilities

Municipal solid waste landfills (MSWLFs) can accept a wide range of solid wastes disposed from residential, commercial, institutional, and industrial sources, except hazardous waste regulated under 329 IAC 3.1. Of the four landfill types, only MSWLFs can accept municipal solid wastes (Table 4).

Construction-demolition sites accept only construction or demolition waste materials (329 IAC 10-9-3).

Figure 1.
Current Solid Waste Categories for Facility Quarterly Reports

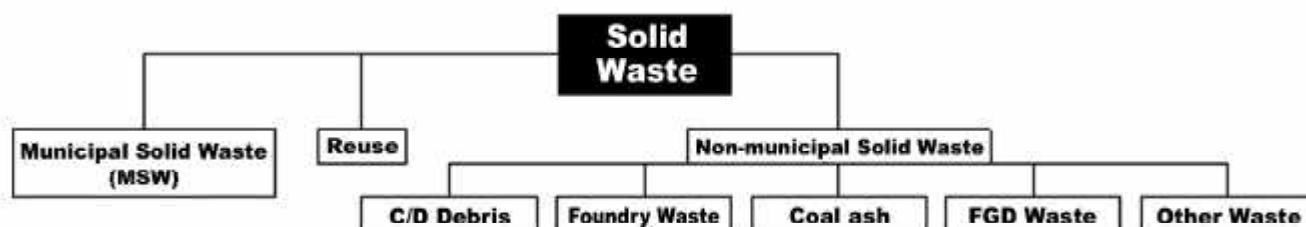


Table 2.
Solid Waste Classification Guide

TYPE	GENERAL CATEGORIES	EXAMPLES	
Municipal Solid Waste (MSW)	Residential - Single- and multi-family units - Other (campgrounds, parks, etc.) Commercial - Retail and wholesale - Service industry Institutional - Prisons, hospitals, schools, and universities - Government sector Industrial non-process - Offices, lunchrooms, restrooms	- Consumer goods - Packaging wastes - Food wastes - Office wastes - Yard trimmings / vegetation - Appliances - Automobile parts - Rinsed pesticide containers - Small animal carcasses - Household medical wastes - Household hazardous wastes (includes oil, batteries, etc.)	- Treated infectious wastes - Medical wastes - Waste tires - Used pallets - Cardboard - Furniture - Exempt other wastes (generated by a single generator in quantities less than 100 kilograms per month and disposed of in quantities less than 100 kilograms per shipment) - CESQG wastes
C/D Debris	Construction / Demolition - Construction industry - Demolition companies	- Uncontaminated solid waste resulting from the construction, remodeling, repair or demolition of structures; e.g., scrap lumber, wallboard	- Roofing materials - Plumbing and electrical fixtures - Bricks, concrete, glass - Non-asbestos insulation
Foundry	Foundry Waste	- Waste sand, slag, sludge, core waste, dust fines, etc.	
Coal Ash	Coal Ash	- Coal ash - Fly ash, bottom ash, etc. - Ash resulting from the combustion of coal	
FGD Waste	Flue gas desulfurization byproducts	- Scrubber / FGD sludge - Pollution control sludges resulting from coal combustion	
Other	Other -Any other non-municipal solid waste not classified as C/D/ Debris, Foundry, Coal Ash, or FGD Waste.	- Manufacturing process wastes (resins, oxides, non-coal combustion sludges, etc.) - Asbestos-containing wastes - Pollution control, spill clean-up wastes	- Oil/gas/mining wastes - Incinerator residues - Low-level PCB wastes - Railroad ties
Reuse (landfills only)	Reuse -Waste utilized for construction in a landfill	- Alternate daily cover - Road construction	-Leachate collection system construction -Landscaping mulch

CESQG = conditionally exempt small quantity generator PCB = polychlorinated biphenyl FGD = flue gas desulfurization

Table 3.
Number of Permitted Solid Waste Facilities Operating During 2001

A. Land Disposal Facilities		B. Processing Facilities	
Municipal Solid Waste Landfills	36	Solid Waste Incinerators⁽⁴⁾	2
• <i>Privately Owned</i>	26	• Municipal	1
• <i>Publicly Owned⁽¹⁾</i>	10	• Industrial ⁽³⁾	1
Construction-Demolition Sites⁽²⁾	9	Transfer Stations	58
Restricted Waste Sites⁽³⁾	19	• <i>Privately Owned</i>	43
Non-municipal Solid Waste Landfills⁽²⁾	4	• <i>Publicly Owned</i>	15
TOTAL	68	TOTAL	60

(1) Includes Belmont Ash Monofill which receives municipal incinerator ash.

(2) Some facilities are captive sites.

(3) All facilities are captive sites.

(4) Incinerators designed to accept at least 10 tons per day.

Table 4.
Types of Landfills and Incinerators

A. Land Disposal		
Type	Acceptable Wastes	Data reported to IDEM
Municipal Solid Waste Landfill	Municipal waste, construction-demolition debris, other non-municipal wastes	Yes
Construction-Demolition Site	Construction-demolition debris only (unless otherwise approved by IDEM)	Yes
Restricted Waste Site	Non-municipal waste(s) specified in permit	Yes
Non-municipal Solid Waste Landfill	Wastes other than residential and commercial wastes	Yes

B. Incinerators		
Type	Acceptable Wastes	Data reported to IDEM
Large solid waste	Municipal waste, construction-demolition debris, other non-municipal wastes	Yes
Small solid waste ⁽¹⁾	Municipal waste, construction-demolition debris, other non-municipal wastes	No
Large infectious waste	Infectious waste (may also accept certain non-infectious waste)	Yes
Small infectious waste ⁽²⁾	Infectious waste (may also accept certain non-infectious waste)	No

(1) Incinerators designed to accept less than 10 tons per day (329 IAC 11-19-2).

(2) Incinerators designed to accept less than 7 tons per day (329 IAC 11-19-2).

Restricted waste sites can accept only materials specified in their landfill permits as determined by the classification criteria in 329 IAC 10-9-4. Coal combustion by-products comprise the largest portion of the waste tonnage disposed at restricted waste sites.

Like restricted waste sites, **non-municipal solid waste landfills** can accept only materials specified in their landfill permits. But non-municipal solid waste landfills have more stringent design standards than restricted waste sites. All of Indiana's non-municipal solid waste landfills are currently captive facilities and therefore, are not available for public use.

In addition to the facility standards discussed here, each individual site may dispose of other materials not included in the above definitions according to its permit.

● Processing Facilities

The term *incinerator* is defined broadly as an engineered facility designed to burn solid waste under controlled conditions. As Table 4 shows, incinerators in Indiana are categorized and regulated as either **solid waste incinerators** or **infectious waste incinerators**.

Solid waste incinerators with a design capacity of at least 10 tons per day and infectious waste incinerators with a design capacity of at least 7 tons per day must obtain a solid waste permit under Indiana solid waste rules 329 IAC 11-9 and 329 IAC 11-17. Other incinerators must notify IDEM and comply with certain operational requirements as stated in 329 IAC 11-19-2 and are deemed to be permitted.

Although incinerators are permitted and regulated under the category of processing facilities, they are considered to be final disposal facilities for planning and disposal fee purposes, as evident in statutory language. The disposal reduction goal language of P.L. 10-1990 also categorizes incineration as a final disposal method.

A **transfer station** is a facility at which solid waste is transferred from a vehicle or container to another vehicle or container for transportation purposes (329 IAC 11-2-47). Transfer stations may manage materials in other ways according to their individual permits. For example, activities at a permitted transfer station may involve only the consolidation

of waste loads for further transport, or may also incorporate some form of materials recovery, during which recyclables are segregated for recycling or reuse.

Tire, paper, and medical waste processing sites also are defined as processing facilities by statute; however, no such facilities were in operation during 2001.

● Accuracy of Facility Reports

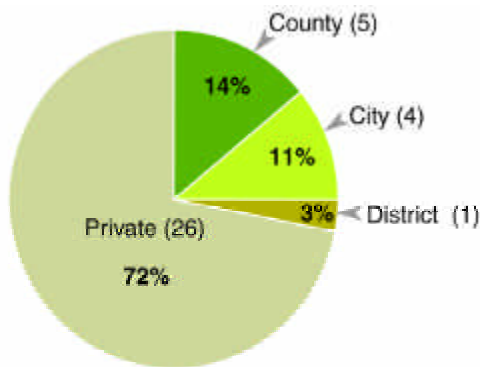
IDEM conservatively estimates that municipal solid waste tonnages may be over-reported by 20 to 40 percent due to some loads of municipal solid waste being mixed with non-municipal solid waste but identified only as municipal solid waste. According to studies in other states, construction-demolition wastes alone can constitute as much as one-third of municipal solid waste. The portion of municipal solid waste that is actually other non-municipal waste is unknown. Because of these uncertainties, caution should be used when attempting to draw conclusions regarding exact amounts of particular waste types.

Municipal Solid Waste Landfill Ownership

Since the facility quarterly report program began in 1991, more of Indiana MSW landfills have been owned privately than owned publicly (Table 3). Figure 2 shows the percentages of private and public ownership of MSW landfills in 2001.

Most construction-demolition and restricted waste sites are privately owned. About seventy percent of Indiana's transfer stations and other permitted processing facilities are privately owned.

Figure 2.
Municipal Solid Waste Landfill Ownership by Percent During 2001



Note: The number in the parenthesis represents the number of facilities.

Origin of Waste

Origin of waste can be broken down by state and by county. A discussion of out-of-state waste is provided beginning on page 27.

Determination of the point of origin of waste by county is difficult due to the manner in which waste is collected and transported to landfills. Waste collection vehicles may transport the waste directly to a landfill and the hauler will report to the landfill operator the county of origin. If the waste collection routes include more than one county as points of origin, the hauler is required to report an estimated percentage of waste for each county to the landfill owner/operator. Furthermore, IDEM guidance instructs land disposal facilities to list the origin of waste received from transfer stations as the county in which the transfer station is located. The extent to which this actually occurs, however, is unknown.

Some waste collection vehicles transport waste to a transfer station, where the hauler is required to report the county (or counties) of origin. The waste received at the transfer station may be commingled with waste from other waste collection vehicles. All or part of the commingled waste may then go to one or more landfills, incinerators, transfer stations, or recycling/processing facilities, where the origin typically is reported as being the county in which the transfer station is located. Figure 3 illustrates the variety of paths that waste can take after it is collected.

In summary, the county identified on some quarterly reports may not be the point of origin, but in fact a transfer point for the waste before it is delivered to the landfill. Table 5 lists estimated amounts disposed at Indiana facilities by county of origin.

Figure 3.
Waste Disposal Pathways

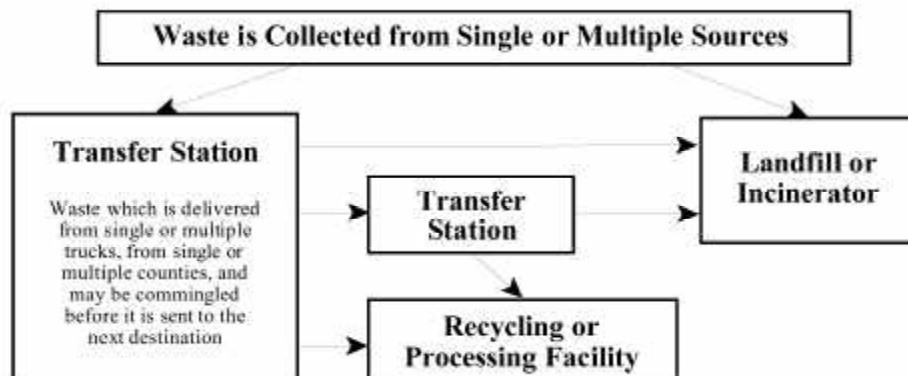


Table 5.
Waste Tons Disposed in Indiana¹, by Estimated County of Origin

County	1993	1994	1995	1996	1997	1998	1999	2000	2001
Adams	28,154	33,250	38,558	82,755	49,022	46,997	46,647	35,183	31,835
Allen	480,868	501,093	492,171	497,446	550,552	528,523	532,067	563,565	529,213
Bartholomew	132,685	168,223	167,021	160,957	173,275	168,594	170,936	168,640	138,449
Benton	4,236	3,087	1,642	1,844	1,900	2,199	2,429	1,768	2,342
Blackford	17,296	18,360	20,732	24,642	27,374	48,542	30,049	18,025	15,813
Boone	79,080	86,576	89,008	76,167	82,072	66,424	88,067	79,787	67,908
Brown	8,537	6,527	6,547	5,475	5,318	4,320	7,414	5,680	5,009
Carroll	13,089	12,487	16,707	20,003	23,776	19,773	22,294	21,530	24,437
Cass	39,758	70,565	37,950	44,121	43,908	52,297	46,347	44,244	58,014
Clark	75,107	75,895	82,523	84,029	89,442	95,526	81,612	98,511	89,357
Clay	17,020	16,284	16,472	19,986	22,152	22,960	27,370	28,258	19,236
Clinton	54,264	51,099	34,023	102,352	47,383	45,816	40,673	49,343	48,602
Crawford	1,417	3,336	2,310	2,108	2,040	5,744	4,716	1,412	1,299
Daviess	27,476	27,553	22,514	26,375	27,404	30,214	26,620	33,003	24,943
De Kalb	81,753	105,196	118,703	134,506	158,921	170,934	130,392	151,427	139,531
Dearborn	10,576	8,271	2,892	1,097	2,230	2,363	2,047	9,124	895
Decatur	24,155	24,675	25,690	26,493	25,927	26,226	26,186	28,521	31,507
Delaware	132,439	150,559	146,606	153,445	152,903	156,084	126,859	154,664	139,272
Dubois	46,943	45,834	45,760	48,633	41,479	42,606	48,287	57,241	58,420
Elkhart	428,892	427,389	396,768	403,842	418,501	436,867	501,018	413,623	396,569
Fayette	14,041	19,835	15,971	15,214	15,240	11,949	17,294	17,493	17,969
Floyd	79,568	79,036	71,948	75,227	67,047	55,835	58,657	56,326	49,136
Fountain	19,360	15,829	151,202	58,611	80,733	58,391	44,248	44,952	54,349
Franklin	5,727	4,203	349	4,526	5,235	4,104	4,300	5,468	7,804
Fulton	20,939	22,472	23,148	25,720	30,168	45,105	50,356	39,723	34,502
County	1993	1994	1995	1996	1997	1998	1999	2000	2001
Gibson	474,288	539,368	761,712	674,664	868,292	1,743,917	945,627	1,038,734	1,102,377
Grant	78,402	61,195	84,441	75,684	89,656	83,442	104,116	86,924	91,298
Greene	20,576	18,870	20,420	25,107	18,448	20,543	23,605	24,112	21,758
Hamilton	122,391	154,743	155,356	132,530	155,769	232,712	261,592	168,933	164,178
Hancock	27,489	27,149	29,239	48,941	100,261	110,809	115,518	120,722	103,938
Harrison	1,579	1,459	66	115	24	112	314	473	1,825
Hendricks	92,919	106,710	136,330	151,369	130,399	126,982	141,111	151,346	144,364
Henry	78,887	81,476	88,945	101,482	92,410	94,261	76,231	62,868	65,101
Howard	123,173	142,633	94,813	145,134	158,536	169,044	157,698	188,929	161,842
Huntington	32,679	51,821	52,858	49,907	39,284	38,921	38,263	41,292	62,478
Jackson	48,360	68,799	71,755	69,183	55,372	57,475	55,609	59,808	58,622
Jasper	400,564	481,436	485,459	441,459	142,311	159,756	166,873	168,003	163,210
Jay	12,909	20,176	23,164	21,791	22,599	54,742	47,752	23,032	25,997
Jefferson	289,067	299,461	227,992	200,642	95,900	63,526	69,832	126,774	111,541
Jennings	10,730	13,341	16,118	16,903	18,747	21,175	20,760	19,987	23,374
Johnson	88,460	74,928	81,456	100,369	155,967	155,694	149,403	161,435	176,820
Knox	45,678	90,257	72,336	40,287	68,449	53,088	52,723	60,216	67,999
Kosciusko	132,465	169,080	198,453	223,056	243,412	241,978	232,641	226,065	203,843
Lagrange	22,836	23,055	19,776	25,069	26,265	50,329	35,700	32,846	36,015
Lake	533,749	574,747	770,020	910,783	769,061	930,599	1,115,650	1,100,952	1,099,149
La Porte	160,302	137,563	156,527	140,152	149,638	134,509	124,388	128,926	110,455
Lawrence	53,041	44,517	55,743	42,217	46,633	39,565	36,273	57,211	72,008

County	1993	1994	1995	1996	1997	1998	1999	2000	2001
Madison	121,846	150,131	162,515	180,448	182,565	173,774	176,554	171,067	187,423
Marion	1,531,189	1,478,486	1,498,477	1,409,899	1,432,887	1,341,364	1,446,384	1,556,981	1,722,697
Marshall	85,366	81,153	86,040	73,941	81,075	91,128	97,866	97,969	83,882
Martin	7,647	5,150	9,811	7,798	7,898	16,886	19,298	14,916	15,899
Miami	40,395	22,219	34,860	28,231	28,471	32,925	41,634	42,320	43,549
Monroe	116,753	105,813	108,008	114,993	128,903	137,838	134,706	137,420	141,150
Montgomery	56,897	61,206	58,368	47,743	78,910	158,463	234,947	168,214	81,208
Morgan	18,408	19,172	29,448	49,670	41,391	49,879	49,548	65,400	58,946
Newton	11,682	14,638	13,021	18,355	17,910	13,727	12,638	12,616	13,313
Noble	45,485	51,763	45,305	47,762	82,792	140,173	113,300	114,368	97,152
Ohio	656	790	245	118	67	51	357	250	65
Orange	14,857	18,942	15,314	15,814	17,750	18,034	14,938	19,162	19,457
Owen	6,936	13,889	14,381	13,598	13,791	8,131	8,436	9,817	10,894
Parke	6,547	8,132	7,261	9,567	16,589	11,682	8,887	11,278	11,050
Perry	8,513	6,574	2,546	3,806	45,736	77,801	130,014	152,844	143,950
Pike	618,918	466,114	600,831	387,362	605,544	520,868	101,361	18,273	17,701
Porter	163,073	105,189	65,748	80,347	78,998	80,199	95,070	106,677	107,780
Posey	276,065	363,826	359,114	380,047	441,333	437,653	378,171	288,486	304,732
Pulaski	9,371	7,585	8,470	9,260	7,654	8,283	7,401	6,443	7,239
Putnam	29,836	29,689	29,756	36,454	30,472	28,944	29,539	36,378	37,534
Randolph	23,606	27,086	28,514	29,113	30,653	34,377	30,899	24,829	45,917
Ripley	17,573	21,096	17,977	12,872	13,219	12,123	12,952	11,593	8,610
Rush	45,651	37,167	39,091	30,802	20,262	30,453	36,719	26,615	25,008

County	1993	1994	1995	1996	1997	1998	1999	2000	2001
Scott	18,304	13,135	17,975	18,640	20,225	21,502	23,583	24,788	20,684
Shelby	58,863	62,028	64,486	84,071	100,964	100,517	104,384	113,831	106,111
Spencer	38,011	38,154	28,842	46,680	15,702	203,585	145,984	207,722	240,580
St. Joseph	282,567	256,973	248,902	241,115	253,189	232,307	200,874	217,838	207,146
Starke	15,302	19,238	13,697	14,544	14,593	11,985	9,294	8,203	5,888
Steuben	20,453	22,100	24,784	24,392	21,593	19,600	26,263	26,925	27,857
Sullivan	837,890	844,348	811,767	1,008,275	1,016,140	948,650	905,662	948,941	923,428
Switzerland	2,128	3,724	3,331	1,026	1,953	1,768	1,988	1,239	2,880
Tippecanoe	237,555	187,477	179,664	240,651	176,748	187,132	164,502	204,184	201,480
Tipton	13,091	12,998	14,802	13,039	14,092	12,267	16,906	12,555	13,843
Union	2,358	2,363	1,684	1,734	1,124	482	1,537	2,168	2,253
UNKNOWN	979	627	433	0	0	0	0	0	0
Vanderburgh	262,894	250,753	286,095	237,839	242,216	239,678	249,633	252,567	270,480
Vermillion	45,628	41,297	38,601	46,740	36,429	37,872	35,210	36,423	29,642
Vigo	215,119	226,194	225,832	213,793	202,182	206,839	229,081	212,474	191,523
Wabash	185,535	255,920	217,760	207,042	233,976	274,892	256,013	215,805	231,323
Warren	2,823	1,047	146	371	96	280	1,299	416	235
Warrick	47,199	49,010	44,989	42,168	45,379	49,245	45,359	43,342	53,035
Washington	13,845	18,085	18,317	19,364	18,189	20,782	19,949	28,020	32,517
Wayne	95,676	113,912	94,583	90,740	87,538	94,227	87,871	80,310	81,963
Wells	45,461	40,101	37,010	30,126	28,472	31,396	25,950	21,800	20,652
White	25,757	28,603	27,499	32,240	32,436	29,958	26,294	28,709	27,874
Whitley	40,488	51,687	27,419	28,341	16,540	10,354	14,770	21,797	17,238

¹ Note: The information in Table 5 reflects the amount of waste from each county that was disposed of in an Indiana final disposal facility, either by direct haul or through an Indiana transfer station. It does not include waste disposed out-of-state, which explains the low amounts reported for counties near state lines.

Solid Waste Land Disposal Facilities

The data in this annual summary reflects the information provided in the solid waste facility quarterly reports submitted to IDEM. There may be some differences between the numbers published in this summary report and previously published annual reports. These differences are due primarily to improvements in the data quality checks made by IDEM Office of Land Quality.

Table 6 displays the amount of solid waste disposed at Indiana land disposal facilities by each reported waste type during 2001. Figure 4 displays this information by landfill type,

Figure 4.
Disposal of Solid Waste by Landfill Type During 2001

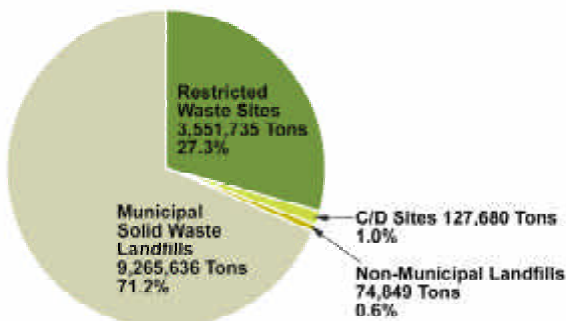
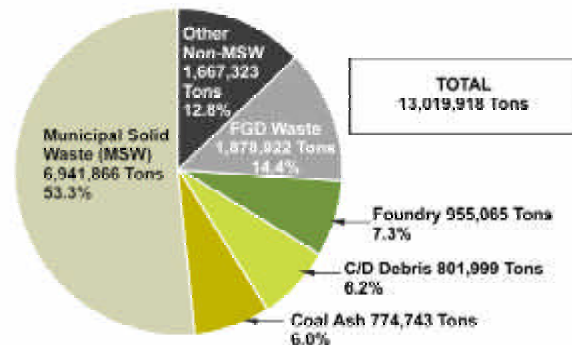


Figure 5.
Disposal of Solid Waste by Waste Type During 2001



and Figure 5 by waste type, both as percentages of total. Table 7 displays totals of solid waste disposed at Indiana land disposal facilities from 1993 through 2001 for municipal waste and all other waste types grouped as non-municipal waste. Table 8 shows the same information as Table 7 but excludes direct imports to Indiana landfills. Due to reporting limitations, waste originating outside Indiana that is brought into the state through an in-state transfer station and disposed in an Indiana landfill cannot be excluded from the quantities in Table 8. Figure 6 shows the municipal waste, non-municipal waste, and total disposal figures for all landfills in Tables 7 and 8 in graph form to more clearly depict disposal trends year-to-year.

Waste received at solid waste incinerators is discussed on page 24 in the chapter on processing facilities.

Table 6.
Disposal of Solid Waste by Landfill Type and Waste Type During 2001

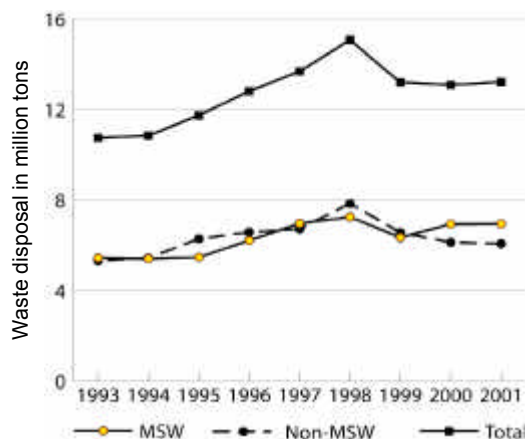
Tons of Waste Disposed					
Waste Type	Municipal Solid Waste Landfills	Construction/ Demolition Sites	Restricted Waste Sites	Non-Municipal Solid Waste Landfills	All Landfills
Municipal	6,937,485	0	0	4,381	6,941,866
C/D Debris	674,319	127,680	0	0	801,999
Coal Ash	11,640	0	763,103	0	774,743
FGDWaste	588	0	1,878,334	0	1,878,922
Foundry	141,777	0	813,288	0	955,065
Other NonMSW	1,499,827	0	97,028	70,468	1,667,323
TOTAL	9,265,636	127,680	3,551,753	74,849	13,019,918

Table 7.
Annual Disposal at Solid Waste Land Disposal
Facilities by Landfill Type and Waste Type
(Includes waste imports to Indiana)

Landfill Type	Waste Type	Tons of Waste Disposed								
		1993	1994	1995	1996	1997	1998	1999	2000	2001
Municipal Solid Waste Landfills	MSW	5,442,952	5,403,287	5,461,501	6,217,748	6,959,493	7,233,635	6,634,100	6,928,077	6,937,485
	NonMSW	1,966,459	1,820,890	2,277,583	2,506,843	2,757,504	2,901,949	2,821,091	2,331,200	2,328,151
	TOTAL	7,409,411	7,224,177	7,739,084	8,724,591	9,716,997	10,135,584	9,455,191	9,259,277	9,265,636
Construction/ Demolition Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	146,491	156,718	144,773	212,453	187,725	195,723	229,010	146,536	127,680
	TOTAL	146,491	156,718	144,773	212,453	187,725	195,723	229,010	146,536	127,680
Restricted Waste Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	3,152,091	3,431,672	3,828,695	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067	3,551,753
	TOTAL	3,152,091	3,431,672	3,828,695	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067	3,551,753
Nonmunicipal Solid Waste Landfills	MSW	0	0	0	579	0	0	0	0	4,381
	NonMSW	33,370	31,863	31,441	28,271	34,016	41,264	71,131	140,201	70,468
	TOTAL	33,370	31,863	31,441	28,850	34,016	41,264	71,131	140,201	74,849
All Landfills	MSW	5,442,952	5,403,287	5,461,501	6,218,327	6,959,493	7,233,635	6,634,100	6,928,077	6,941,866
	NonMSW	5,298,411	5,441,143	6,282,492	6,571,854	6,719,925	7,828,420	6,559,422	6,143,004	6,078,052
	TOTAL	10,741,363	10,844,430	11,743,993	12,790,181	13,679,418	15,062,055	13,193,522	13,071,081	13,019,918

Figure 6.
Annual Disposal at All Solid Waste Land Disposal Facilities

(Includes waste imports to Indiana)



(Excludes direct imports to Indiana landfills)

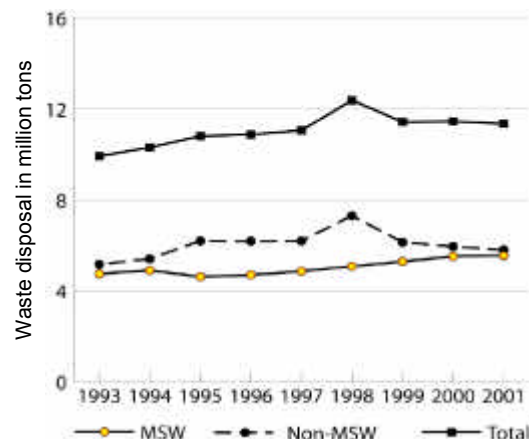


Table 8.
Annual Disposal at Solid Waste Land Disposal
Facilities by Landfill Type and Waste Type
 (Excludes direct imports to Indiana landfills)

Landfill Type	Waste Type	Tons of Waste Disposed								
		1993	1994	1995	1996	1997	1998	1999	2000	2001
Municipal Solid Waste Landfills	MSW	4,750,103	4,902,171	4,620,376	4,696,297	4,858,656	5,080,056	5,297,116	5,515,530	5,546,617
	NonMSW	1,837,708	1,785,856	2,195,249	2,195,206	2,275,083	2,407,182	2,439,624	2,166,705	2,053,755
	TOTAL	6,587,811	6,688,027	6,815,625	6,891,503	7,133,739	7,487,238	7,736,740	7,682,235	7,600,372
Construction/ Demolition Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	146,491	153,421	137,998	135,055	148,257	166,489	205,432	144,976	126,264
	TOTAL	146,491	153,421	137,998	135,055	148,257	166,489	205,432	144,976	126,264
Restricted Waste Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	3,152,091	3,431,672	3,828,695	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067	3,551,753
	TOTAL	3,152,091	3,431,672	3,828,695	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067	3,551,753
Nonmunicipal Solid Waste Landfills	MSW	0	0	0	579	0	0	0	0	4,381
	NonMSW	33,370	31,863	31,441	28,271	34,016	38,860	49,300	139,966	67,739
	TOTAL	33,370	31,863	31,441	28,850	34,016	38,860	49,300	139,966	72,120
All Landfills	MSW	4,750,103	4,902,171	4,620,376	4,696,876	4,858,656	5,080,056	5,297,116	5,515,530	5,550,998
	NonMSW	5,169,660	5,402,812	6,193,383	6,182,819	6,198,036	7,302,015	6,132,546	5,976,714	5,799,511
	TOTAL	9,919,763	10,304,983	10,813,759	10,879,695	11,056,692	12,382,071	11,429,662	11,492,244	11,350,509

Municipal Solid Waste Landfills

Most questions about land disposal facilities deal primarily with municipal solid waste (MSW) landfills. MSW landfills receive waste materials from residences, businesses, institutions, and industries. As a result of the wide range of waste types these landfills receive, they are built to more stringent landfill design criteria than, for example, a construction-demolition site that accepts only construction-demolition wastes. Figure 7 breaks down the amounts disposed at MSW landfills by waste type shown in Table 6 as a percentage of total.

Figure 7.
Disposal of Solid Waste at Municipal Solid Waste Landfills by Waste Type During 2001

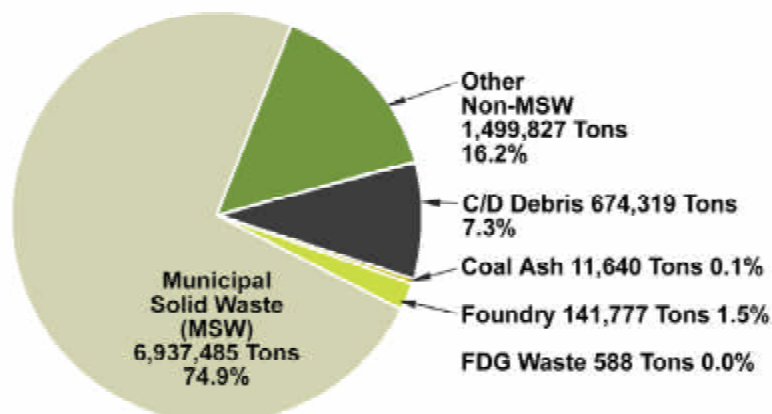
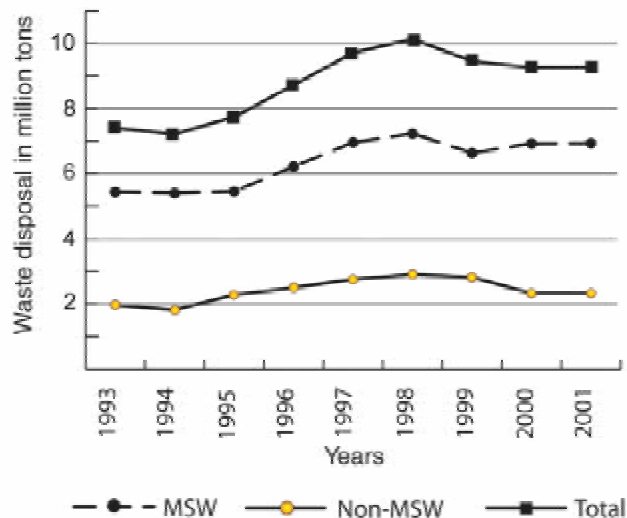


Figure 8.
Annual Disposal at Municipal Solid Waste Landfills

(Includes waste imports to Indiana)



(Excludes direct imports to Indiana landfills)

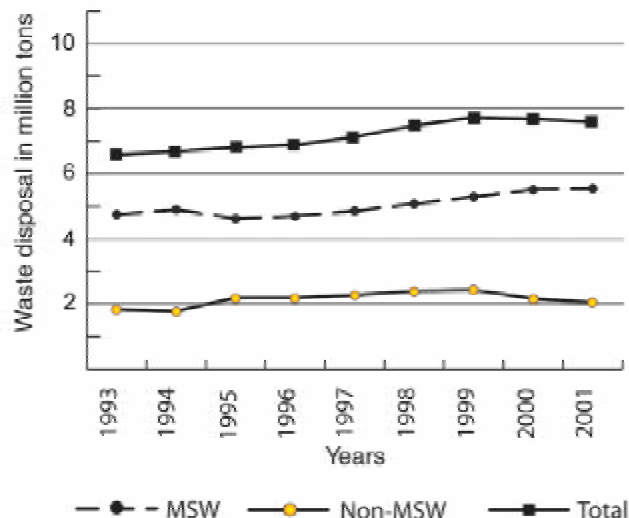


Figure 8 shows the municipal waste, non-municipal waste, and total disposal figures for MSW landfills in Table 7 and 8 in graph form to more clearly depict disposal trends year-to-year.

Figure 9 shows the disposal of out-of-state waste vs. Indiana wastes at MSW landfills. A more detailed discussion of out-of-state waste is provided beginning on page 27.

Figure 9.
Annual Disposal at Municipal Solid Waste Landfills by Waste Origin

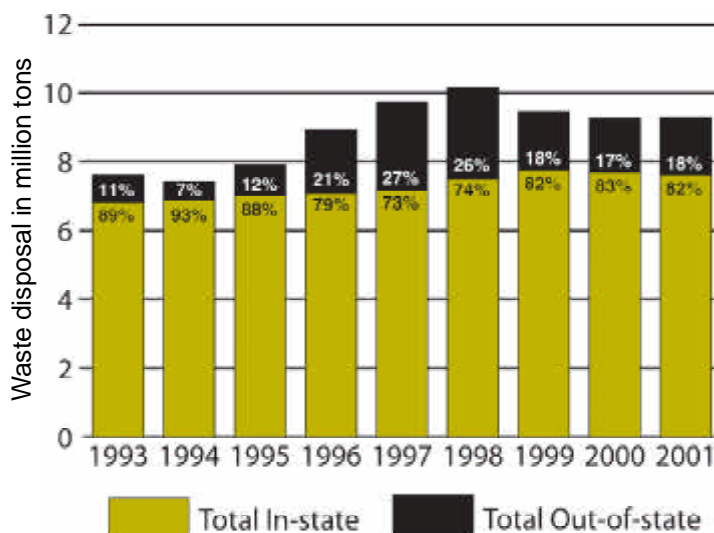


Figure 10 shows the distribution of disposal among MSW landfills. Note that more than one third (36% or 13) of MSW landfills accepted less than 100,000 tons of solid waste.

Figure 10.
Distribution of Disposal at Municipal Solid Waste Landfills During 2001

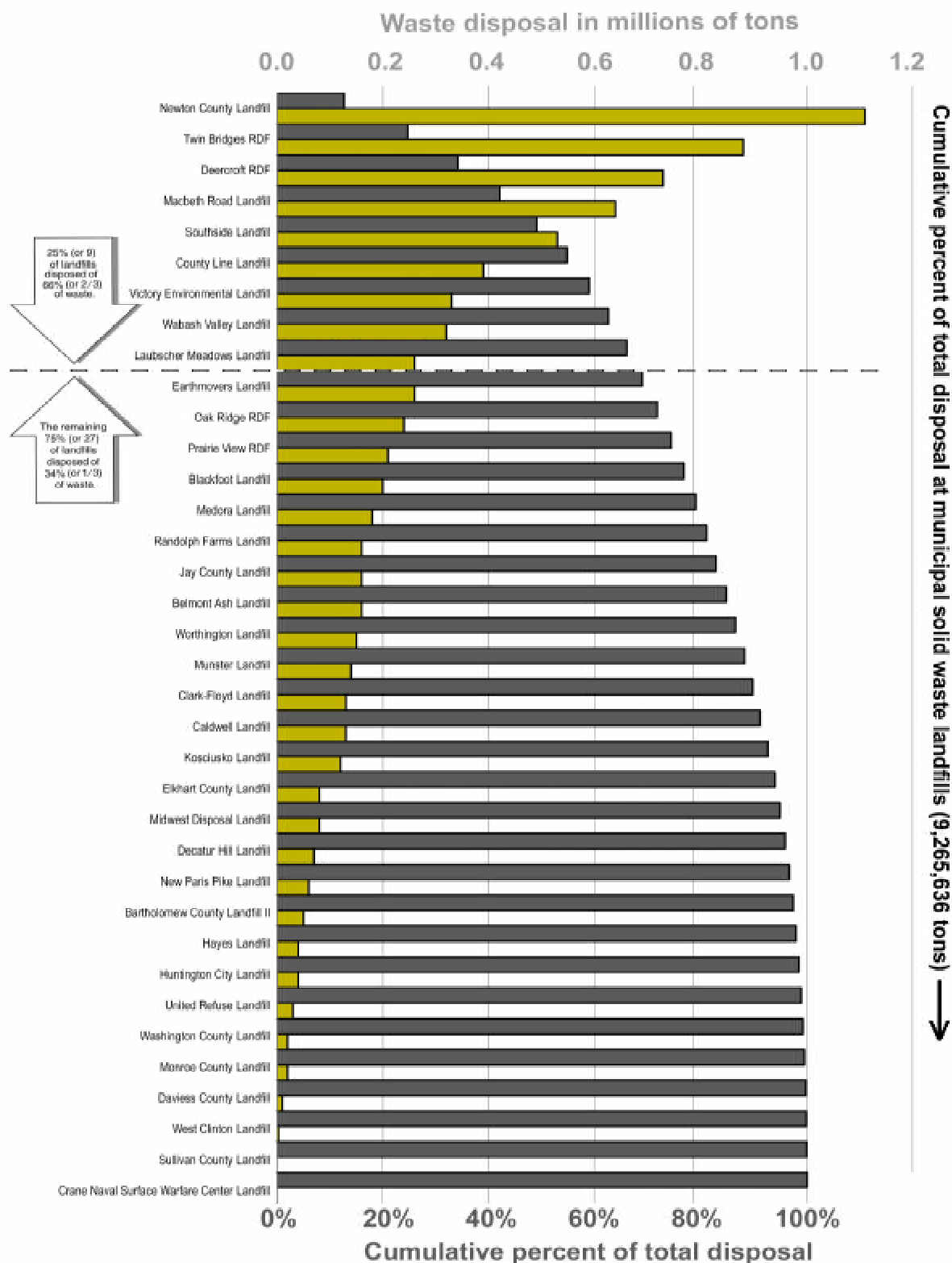


Table 9 summarizes total disposal at individual MSW landfills during 2001. More detailed disposal data for all solid waste disposal facilities is given at the end of this report in "2001 Solid Waste Facility Profiles."

Table 9.
Total Disposal at Municipal Solid Waste Landfills During 2001

County Location of Facility	Facility Name	Waste Disposal in Tons	Number of Operating Days	Disposal per Operating Day (Tons)
Allen	Macbeth Road Landfill	733,312	307	2,389
Allen	United Refuse Landfill	43,209	137	315
Bartholomew	Bartholomew County Landfill II	65,617	306	214
Cass	Oak Ridge Recycling and Disposal Facility	264,272	295	896
Clark	Clark-Floyd Landfill	143,472	308	466
Clinton	Midwest Disposal Landfill	88,737	303	293
Daviess	Daviess County Landfill	22,583	304	74
Decatur	Decatur Hills Landfill	85,979	308	279
Elkhart	Earthmovers Landfill	269,144	307	877
Elkhart	Elkhart County Landfill	127,564	289	441
Fulton	County Line Landfill	530,075	306	1,732
Greene	Worthington Landfill	161,963	310	522
Hendricks	Twin Bridges Recycling and Disposal Facility	1,113,559	312	3,569
Henry	Hayes Landfill	51,871	307	169
Huntington	Huntington City Landfill	48,363	268	180
Jackson	Medora Sanitary Landfill	209,594	283	741
Jay	Jay County Landfill	165,428	308	537
Kosciusko	Kosciusko Landfill	133,542	294	454
Lake	Munster Landfill	157,622	260	606
La Porte	Deercroft Recycling and Disposal Facility	881,725	295	2,989
Marion	Southside Landfill	644,873	310	2,080
Marion	Belmont Ash Landfill	164,816	310	532
Martin	Crane Naval Surface Warfare Center Landfill	1,293	246	5
Monroe	Monroe County Landfill	25,106	309	81
Newton	Newton County Landfill Partnership	1,176,499	307	3,832
Pike	Blackfoot Landfill	219,373	307	715
Randolph	Randolph Farms Landfill	189,940	312	609
St. Joseph	Prairie View Recycling and Disposal Facility	243,527	307	793
Shelby	Caldwell Landfill	133,906	309	433
Sullivan	Sullivan County Landfill	4,658	222	21
Vanderburgh	Laubscher Meadows Landfill	323,208	309	1,046
Vermillion	West Clinton Landfill	10,564	303	35
Vigo	Victory Environmental Landfill	390,541	310	1,260
Wabash	Wabash Valley Landfill	334,795	307	1,091
Washington	Washington County Landfill	31,154	306	102
Wayne	New Paris Pike Landfill	73,752	255	289
Total for all Municipal Solid Waste Landfills		9,265,636		

Other Solid Waste Land Disposal Facilities

Construction-Demolition Sites

Construction-demolition sites receive only construction and demolition waste as described in Table 2. As shown in Figure 11, these sites did not receive a significant amount of out-of-state waste until 1996, when the amount of out-of-state waste increased from 5 to 36 percent of total receipts. Percentages of out-of-state waste received by construction-demolition sites returned to their pre-1996 levels in 2000 and 2001. Table 10 provides a listing of the construction-demolition landfills and the total amount of waste each facility received in 2001.



Figure 11.
Annual Disposal at Construction-Demolition Sites by Waste Origin

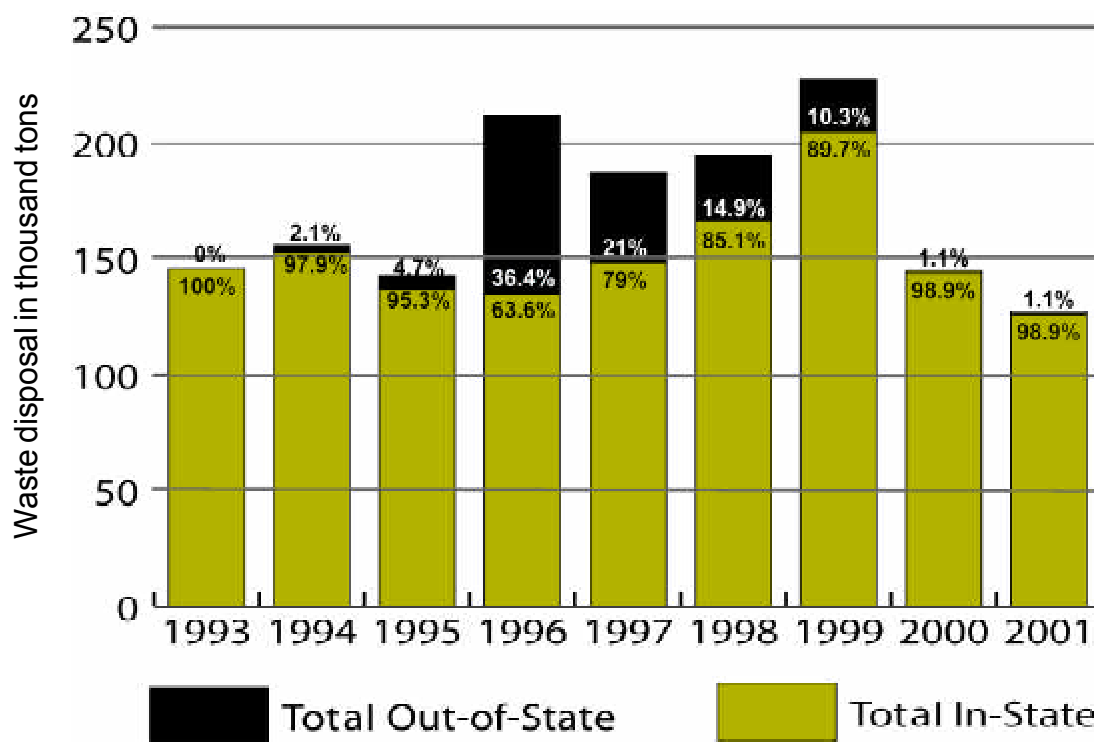


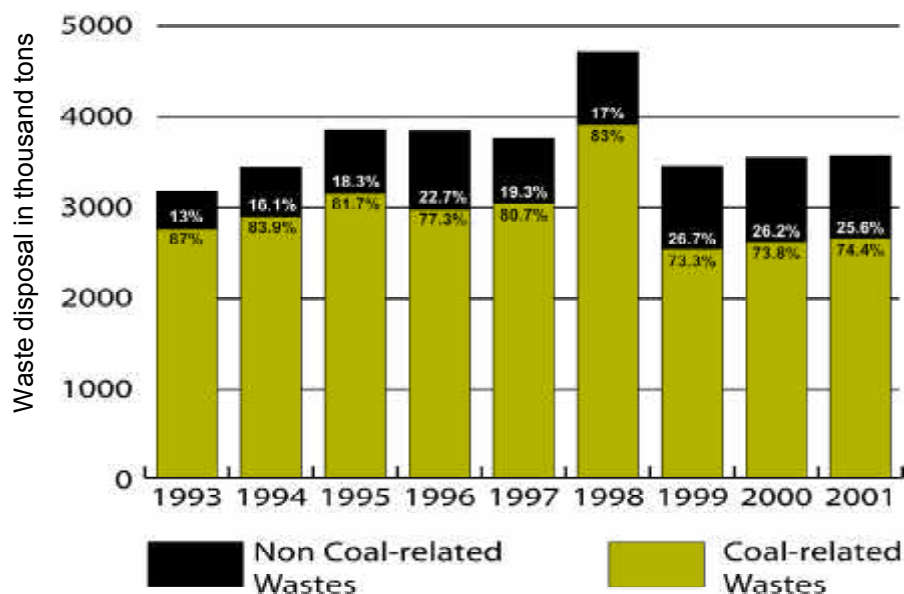
Table 10.**Total Disposal at Construction-Demolition Sites During 2001⁽¹⁾**

County Location of Facility	Facility Name	Waste Disposal In Tons
Allen	M & M C/D Site	237
Elkhart	Warner & Sons Inc. C/D Site	38,931
Madison	Industrial Removal C/D Site	10,213
Martin	Crane Naval Surface Warfare Center C/D Site	7,196
Monroe	Monroe County SWMD C/D Site	24,399
Pike	Velpen Solid C/D Site	11,839
Posey	Springfield Environmental C/D Site	25,117
Tippecanoe	Purdue University C/D Site	1,480
Vermillion	West Clinton II C/D Site	8,268
Total for All Construction-Demolition Sites:		127,680

(1) Feddeler C/D Site closed in 2000 and thus accepted no waste in 2001

Restricted Waste Sites

Restricted waste sites also receive a limited range of wastes, as specified in their facility permits. Most sites are ash, sludge, or foundry monofills. Coal combustion wastes from power plants accounted for 74 percent of the total tonnage disposed at restricted waste sites in 2001 (Figure 12). Note that prior to 1996, coal combustion wastes were not individually reported waste types on the solid waste facility quarterly reporting program. Before 1996, the amount of coal-related wastes disposed was estimated based on the amount of waste received at specific types of restricted waste sites related to coal combustion.

Figure 12.
Annual Disposal at Restricted Waste Sites by Waste Type⁽¹⁾

(1) Percentages estimated 1993-1995.

The total waste disposed each year in restricted waste sites is much larger than the amount received at construction-demolition sites, although not as large as the amount of waste received by municipal solid waste landfills (Figure 4).

No restricted waste sites have reported receiving out-of-state waste since 1992. Table 11 provides a listing of the restricted waste sites and the total amount of waste each facility received during 2001.

Table 11.
Total Disposal at Restricted Waste Sites During 2001⁽¹⁾

County Location of Facility	Facility Name	Waste Disposal In Tons
Bartholomew	City Garage Site RWS 3	53,661
De Kalb	Auburn Foundry RWS 3	51,825
Fountain	Harrison Steel Cast RWS 3	54,096
Gibson	Gibson Station Scrubber RWS 2	1,072,468
Jasper	Schahfer FGD Sludge RWS 1	140,745
Jefferson	Clifty Creek Coal Ash Disposal RWS 3	92,210
Knox	Scepter Industries RWS 1	42,157
Kosciusko	Dalton Foundry RWS 3	99,621
Lake	U.S. Steel - Gary Works RWS 1	283,421
Lawrence	Lehigh Portland Cement Co RWS 1	25,771
Noble	Newman Manufacturing RWS 3	46,006
Perry	Waupaca Foundry RWS 3	137,881
Pike	Petersburg Generating Station RWS 3	8,675
Porter	Yard 520 RWS 3	3,021
Posey	SIGECO Filter Cake Disposal RWS 3	201,311
Spencer	Rockport Plant Ash RWS 2	216,990
Sullivan	Merom Station RWS 2	906,017
Wabash	Ford Meter Box RWS 3	3,147
Wabash	Wabash Alloys RWS 1	112,730
Total for All Restricted Waste Sites:		3,551,753

(1) McCarty RWS 3 closed November 2000 and thus accepted no waste in 2001.

Non-municipal Solid Waste Landfills

The 1996 rules introduced the terms municipal solid waste (MSW) landfill and non-municipal solid waste (Non-MSW) landfill, which have been used throughout this report. In previous reports, Non-MSW landfills were grouped with MSW landfills under the general heading of “sanitary landfills.” MSW landfills were discussed earlier in this section. There are only a few Non-MSW landfills in Indiana and currently

all are captive facilities, not available for public use. They may receive any type of waste described in Table 2 except MSW, pursuant to the specifications of their permits. Table 12 provides a listing of the non-municipal solid waste landfills and the total amount of waste each facility received during 2001.

Table 12.

Total Disposal at Nonmunicipal Solid Waste Landfills During 2001

County Location of Facility	Facility Name	Waste Disposal In Tons
Monroe	Dillman Road WWTP Landfill	8,325
Putnam	Heritage Landfill	46,457
Vermillion	Premiere Boxboard Limited Landfill	13,413
Warrick	ALCOA Sanitary Landfill ⁽¹⁾	6,654
Total for All Non-municipal Solid Waste Landfills:		74,849

(1) ALCOA Sanitary Landfill closed in July 2001.

Solid Waste Processing Facilities

Solid waste processing facilities include:

- solid waste incinerators;
- transfer stations; and
- other processing facilities.

Table 13 displays the amount of solid waste received by permitted Indiana incinerators (excluding small-capacity incinerators) and transfer stations by each reported waste type during 2001. Table 14 displays similar information from 1993 through 2001 for municipal and non-municipal waste. More detailed data for all solid waste processing facilities is given at the end of this report in "2001 Solid Waste Facility Profiles." Other processing facilities are discussed later in this section.

Table 13.

Solid Waste Received by Processing Facilities by Waste Type During 2001

Waste Type	Tons of Waste Received	
	Incinerators ⁽¹⁾	Transfer Stations
Municipal	636,072	2,282,366
C/D	0	450,643
Coal Ash	0	0
FGDWaste	0	0
Foundry	0	0
Other Non-MSW	30,274	19,608
TOTAL	666,346	2,752,617

⁽¹⁾ Does not include small-capacity incinerators receiving less than 10 tons/day of solid waste or 7 tons/day of infectious waste.

Table 14.

Annual Amount of Solid Waste Received by Processing Facility Type and Waste Type (Includes waste imports to Indiana)

Facility Type	Waste Type	Tons of Waste Received								
		1993	1994	1995	1996	1997	1998	1999	2000	2001
Incinerators ⁽¹⁾	MSW	731,929	687,198	668,499	689,859	681,147	670,380	669,718	632,880	636,072
	NonMSW	33,736	21,318	22,439	22,839	28,183	25,552	27,901	28,672	30,274
	TOTAL	765,665	708,516	690,938	712,698	709,330	695,932	697,619	661,552	666,346
Transfer Stations	MSW	981,681	1,210,393	1,409,747	1,434,712	1,523,836	1,753,009	1,935,432	2,230,153	2,282,366
	NonMSW	232,438	206,450	184,807	291,183	404,897	476,100	474,227	499,069	470,251
	TOTAL	1,214,119	1,416,843	1,594,554	1,725,895	1,928,733	2,229,109	2,409,659	2,729,222	2,752,617

⁽¹⁾ Does not include small-capacity incinerators receiving less than 10 tons/day of solid waste or 7 tons/day of infectious waste.

Solid Waste Incinerators

For reporting and permitting purposes, solid waste incinerators are regarded as processing facilities. For solid waste planning and fee purposes, incinerators are considered as final disposal facilities. Table 15 provides a list of the permitted solid waste incinerators that operated in 2001 and the total amount of solid waste received by these facilities. The list does not include the small-capacity incinerators in Indiana that are not required to report to IDEM.

Annually, Covanta Indianapolis Resource Recovery Facility receives roughly five percent of the total tonnage of waste either land disposed or incinerated in Indiana. From the waste received by Covanta during 2001, there was about 165,400 tons of ash produced and delivered to the Belmont Ash Land-fill for disposal. The ash produced is equivalent to about 26 percent of the waste received at Covanta.

Table 15.
Total Waste Received by Incinerators During 2001⁽¹⁾

County Location of Facility	Facility Name	Waste Received In Tons
Marion	Covanta Indianapolis Resource Recovery Facility	638,304
Posey	General Electric Ultem Thermal Oxidizer System	28,042
Total for All Incinerators		666,346

(1) St. Vincent Hospital Incinerator closed in May 2000 and received no waste in 2001.

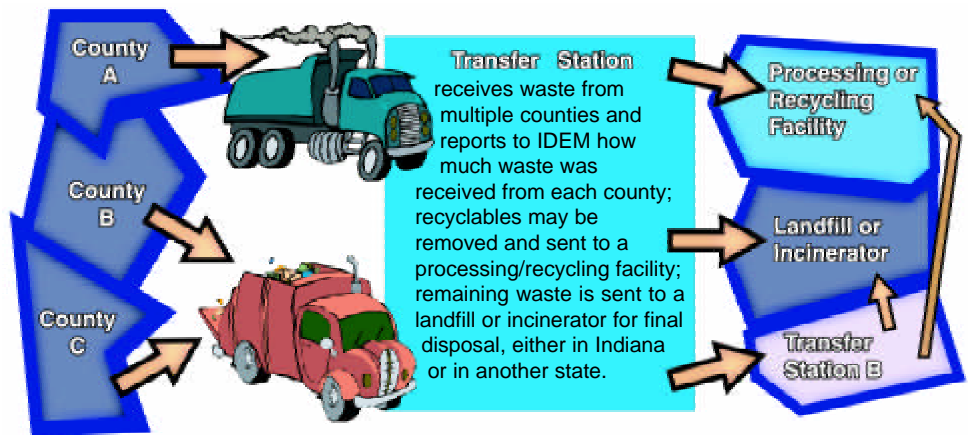
Transfer Stations

Transfer stations are facilities that allow waste from individual collection vehicles to be offloaded and then re-loaded into larger vehicles for transport to final disposal facilities. Some transfer stations recover recyclable materials and send them to processing or recycling facilities.

The accountability for differences in incoming and outgoing waste at transfer stations has improved over the years. Although for the first few years of quarterly reporting there was no mechanism to track such differences, reporting forms were improved to include materials recovery. Facilities are also required to submit written explanations if the difference between incoming and outgoing tonnage totals is due to a reason other than materials recovery. In most instances, these differences are the result of materials recovery or differences in volume-to-tons conversions.

As discussed on page 10, it is difficult to track the true origin of waste. Waste collection vehicles may transport their waste directly to a landfill or they may take it to a transfer station. A

Figure 13.
Transfer Station Waste Management



landfill receiving waste from a transfer station documents it as originating from the county in which the transfer station is located, regardless of whether any of the waste was generated in that county. The issue is further complicated when the transfer station receives waste from two or more counties, mixes the loads in a central location, removes various recyclables, then transports the waste to two or more landfills, another transfer station and/or a recycling facility. Figure 13 illustrates how the tonnage received from the counties may be known, but the waste sent for final disposal or processing may not directly identify the point of origin.

Table 16.
Destination of Waste Sent from Transfer Stations for Final Disposal

Year	Total Tons Sent To All Facilities	To Indiana Facilities		To Out-of-State Facilities	
		Tonnage	% of Total	Tonnage	% of Total
1993	1,138,797	1,085,337	95.3	53,460	4.7
1994	1,319,874	1,172,664	88.8	147,210	11.2
1995	1,519,856	1,344,676	88.5	175,180	11.5
1996	1,639,145	1,468,074	89.6	171,071	10.4
1997	1,835,145	1,629,723	88.8	205,422	11.2
1998	2,131,526	1,917,838	90.0	213,688	10.0
1999	2,317,959	2,059,268	88.8	258,691	11.2
2000	2,557,813	2,268,754	88.0	309,059	12.0
2001	2,638,995	2,303,805	87.3	335,190	12.7

Quarterly reports from transfer stations currently provide the only source of systematic information on the amount of waste exported by Indiana. Table 16 shows the amount of waste sent out-of-state from transfer stations as compared with the amount of waste sent to Indiana final disposal facilities from 1993 to 2001. Figure 14 shows a more detailed breakdown of the destination information for 2001. This information does not provide a complete picture of Indiana waste exports because the totals in Table 16 are based only on information obtained from processing facility quarterly reports. The amount of waste hauled directly from an Indiana residence or business to an out-of-state destination is not adequately known due to reporting limitations.

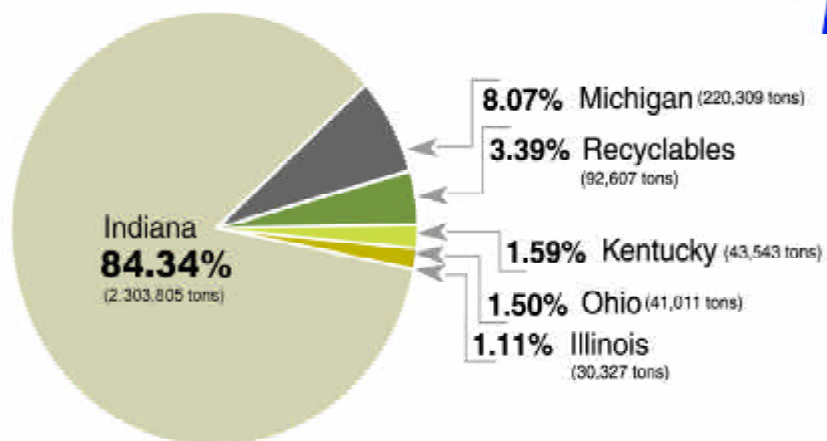
More detailed data for transfer stations is given at the end of this report in "2001 Solid Waste Facility Profiles."

Other Processing Facilities

Other processing facilities permitted by IDEM could include paper and medical waste processing facilities. None of the facilities operating during 2001 are classified under this category.

IDEM issues permits to any solid waste processing facility upon which is located a solid waste incinerator, transfer station, solid waste baler, solid waste shredder, resource recovery system, composting facility, or garbage grinding facility (as defined in 329 IAC 11-2-43, unless excluded by 329 IAC 11-3-1).

Figure 14.
Destination of Waste Sent from Transfer Stations During 2001



Out-of-State Waste

Solid waste imported from out-of-state sources can be received at landfills, incinerators, or transfer stations. Historically, the predominant states of origin for solid waste imports have been the four states contiguous to Indiana (Illinois, Michigan, Ohio, and Kentucky). As Figure 15 shows, the portion of out-of-state waste originating from non-contiguous states has decreased dramatically since 1993, and by 1995 accounted for less than 1 percent of Indiana's total imports. In 1999, no waste was received from East Coast states and commonwealths for the first time since the implementation of facility quarterly reports. Less than 700 tons were received from New Jersey and Virginia in 2000, and about 17 tons were received from New Jersey, Georgia, and

Puerto Rico combined in 2001. Figure 15 also shows that, despite a significant drop in the amount of out-of-state waste received by Indiana facilities from 1993 to 1994, waste imports increased significantly in 1995 and doubled in 1996. Out-of-state waste received by Indiana facilities increased by 32 percent from 1996 to 1998 to their highest level in the last seven years (over 2.7 million tons). In 1999, out-of-state waste receipts decreased by about one million tons and stayed steady through 2001. In 2001, out-of-state waste accounted for 13 percent of the waste disposed at all of Indiana's disposal facilities and 19 percent of the waste disposed in MSW landfills.

Figure 15. Annual Waste Imports by Region of Origin

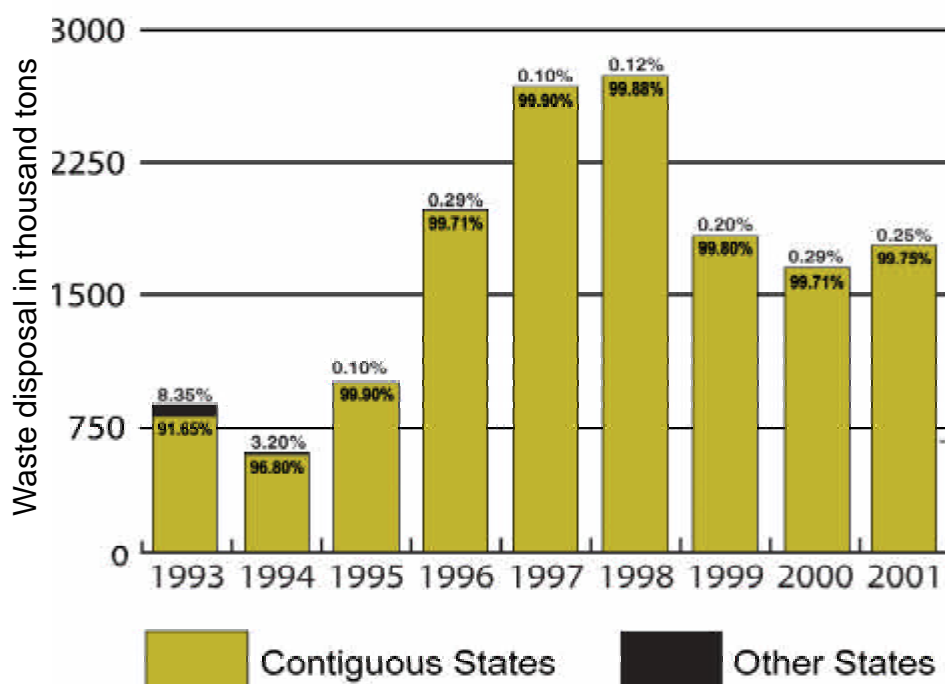


Table 17 details the state origin and amount of out-of-state waste received at Indiana solid waste facilities during 2001. Figure 16 shows this information from 1993 through 2001. Illinois has been historically the largest source of waste

imported to Indiana. In 2001, Illinois waste accounted for 92 percent of the out-of-state waste received by Indiana solid waste facilities. Ninety eight percent of that waste came from the Chicago area.

Table 17.
Out-of-State Waste Received During 2001

Total Tons: 1,739,778					
State County Name	Tons Received	State County Name	Tons Received	State County Name	Tons Received
Illinois	1,595,205	Kentucky	48,754	Wisconsin	1,340
Champaign	1,680	Bullitt	3	Milwaukee	72
Clark	2,173	Carroll	659	Winnebago	1,268
Coles	37	Daviess	149	Nevada	371
Cook	1,556,928	Grant	43	Storey	371
Crawford	18,727	Hancock	3	California	323
Cumberland	9	Hardin	400	Los Angeles	323
DuPage	4,026	Henderson	45,403	Tennessee	199
Edgar	3,940	Jefferson	1,797	Davidson	2
Fayette	276	Knox	22	Giles	5
Iroquois	4	Meade	9	Lawrence	10
Jasper	9	Mercer	88	UNKNOWN	182
Lake	8	Oldham	75	Texas	111
Lawrence	1,214	Pulaski	103	Bexar	111
Madison	34	Ohio	26,179	Nebraska	48
Marion	99	Ashland	8	Hall	24
Mason	22	Auglaize	454	Otoe	24
Richland	14	Cuyahoga	7	Arkansas	28
UNKNOWN	4	Darke	4,729	Saline	17
Vermillion	216	Defiance	17	Sebastian	11
Wabash	1,529	Hamilton	2,873	Kansas	27
Will	4,256	Lucas	2	Doniphan	13
Michigan	65,222	Mercer	4,015	Johnson	14
Berrien	2,856	Montgomery	255	Iowa	26
Branch	55,062	Paulding	586	Des Moines	17
Cass	2,832	Preble	386	Polk	9
Genesee	2,194	UNKNOWN	57	New Jersey	10
Ingham	6	Van Wert	12,729	UNKNOWN	10
St. Joseph	1,929	Williams	61	Georgia	6
UNKNOWN	343	Missouri	1,928	DeKalb	6
		Clay	32	Puerto Rico	1
		Jackson	75	UNKNOWN	1
		St. Louis	1,821		

Figure 16.
Annual Waste Imports by State of Origin

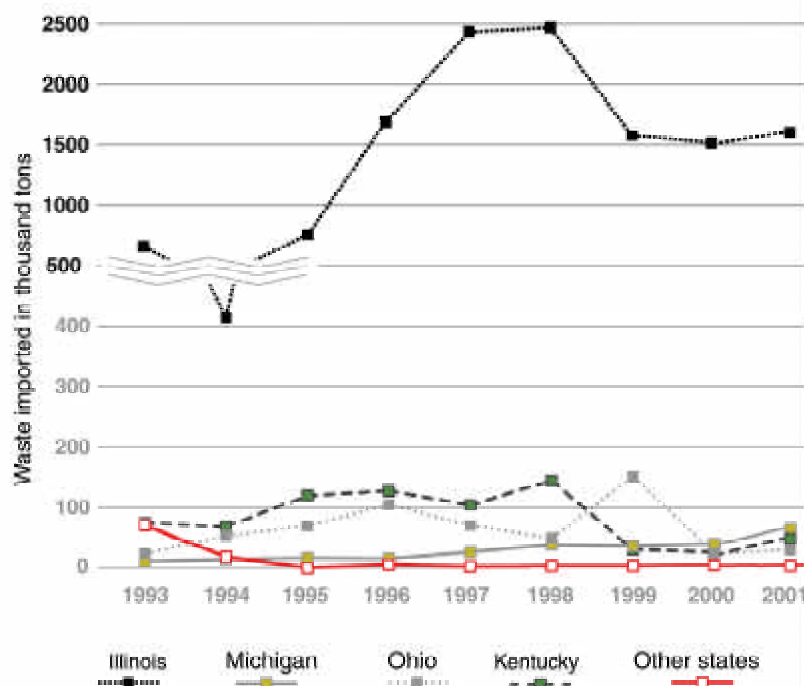


Table 18 displays the amount of out-of-state waste received by Indiana's permitted solid waste facilities by each reported waste type during 2001. Table 19 displays similar information from 1993 through 2001 for municipal and non-municipal waste. MSW landfills have consistently received most of the waste imported from other states.

Table 18.
Amount of Out-of-State Waste Received by Solid Waste Facilities by Facility Type and Waste Type During 2001

Waste Type	Tons of Waste Disposed					
	Municipal Solid Waste Landfills	Construction/ Demolition Sites	Non-MSW Landfills	Incinerators ¹	Transfer Stations ¹	All Facilities
Municipal	1,390,868			11,815	54,016	1,456,699
C/D	137,790	1,416			3,210	142,416
Foundry	5,209					5,209
Coal Ash	13					13
FGD Waste	410					410
Other NonMSW	130,974		2,729	897	431	135,031
TOTAL	1,665,264	1,416	2,729	12,712	57,657	1,739,778

¹ No processing facilities other than transfer stations and incinerators operated during 2001.

Figure 17 shows that municipal solid waste historically has accounted for the largest percentage of waste imports. However, non-municipal waste imports seemed to increase considerably between 1995 and 1998. This increase may have been due to imports of waste materials to be used as alternative daily cover by landfills. Alternative daily cover amounts were not included as waste in this report for 1999 through 2001.

Figure 17.
Annual Amount of Out-of-State Waste Received by
Solid Waste Facilities

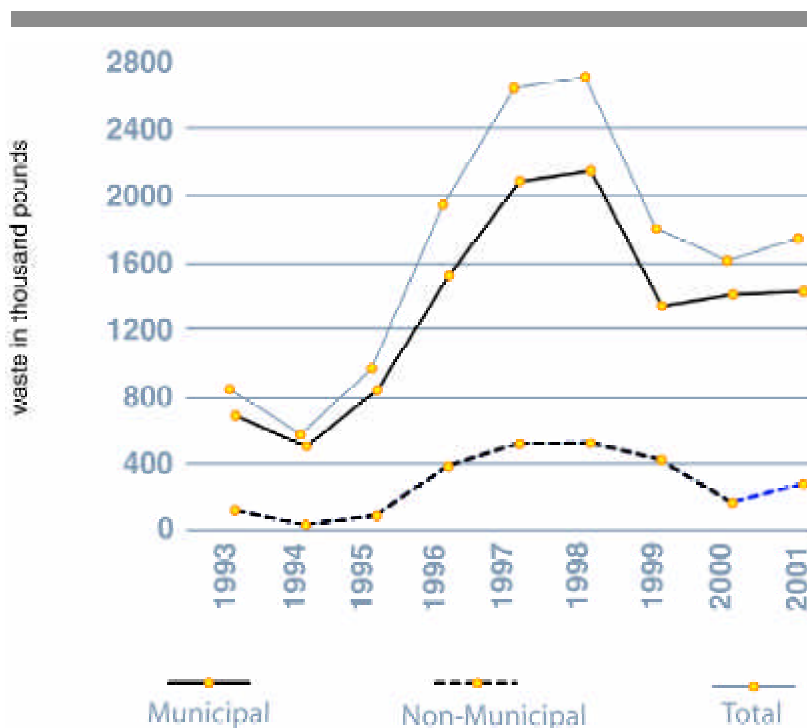


Table 19.

Annual Amount of Out-of-State Waste Received by Solid Waste Facilities by Facility Type and Waste Type

Landfill Type	Waste Type	Tons of Waste Disposed								
		1993	1994	1995	1996	1997	1998	1999	2000	2001
Municipal Solid Waste Landfills ⁽¹⁾	MSW	692,849	501,116	841,125	1,521,451	2,100,837	2,153,579	1,336,984	1,412,547	1,390,868
	NonMSW	128,751	35,034	82,334	311,637	482,421	494,767	381,467	164,495	274,396
	TOTAL	821,600	536,150	923,459	1,833,088	2,583,258	2,648,346	1,718,451	1,577,042	1,665,264
Construction/ Demolition Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	0	3,297	6,775	77,398	39,468	29,234	23,578	1,560	1,416
	TOTAL	0	3,297	6,775	77,398	39,468	29,234	23,578	1,560	1,416
Nonmunicipal Solid Waste Landfills	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	0	0	0	0	0	2,404	21,831	235	2,729
	TOTAL	0	0	0	0	0	2,404	21,831	235	2,729
Incinerators (nonhospital)	MSW	1,119	2,409	2,560	7,777	5,228	5,488	11,603	9,851	11,815
	NonMSW	0	0	171	599	855	1,505	1,303	1,396	897
	TOTAL	1,119	2,409	2,731	8,376	6,083	6,993	12,906	11,247	12,712
Transfer Stations ⁽²⁾	MSW	18,382	27,034	24,359	22,673	10,448	17,988	22,520	17,093	54,016
	NonMSW	367	640	6,621	604	519	737	683	4,724	3,641
	TOTAL	18,749	27,674	30,980	23,277	10,967	18,725	23,203	21,817	57,657
All Facilities	MSW	712,350	530,559	868,044	1,551,901	2,116,513	2,177,055	1,371,107	1,439,491	1,456,699
	NonMSW	129,118	38,971	95,901	390,238	523,263	528,647	428,862	172,410	283,079
	TOTAL	841,468	569,530	963,945	1,942,139	2,639,776	2,705,702	1,799,969	1,611,901	1,739,778

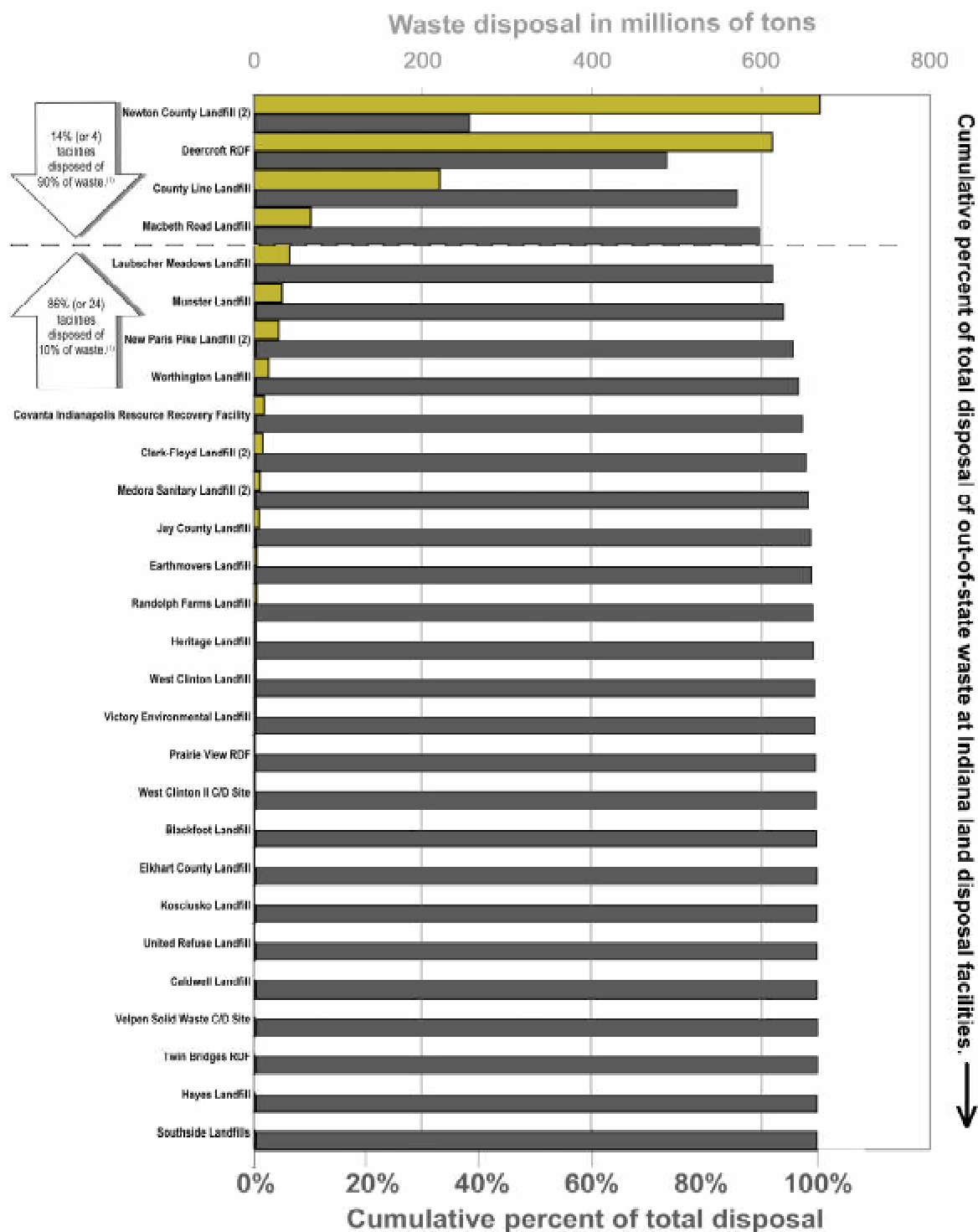
(1) This reflects only out-of-state waste shipped directly to MSW landfills. Most of the out-of-state waste received by transfer stations was sent to Indiana MSW landfills for final disposal. However, these MSW landfills reported the origin of this out-of-state waste as the county in which the transfer station was located, rather than the state in which the waste originated, in accordance with IDEM guidance.

(2) Between 1993 and 1996, the majority of this waste was sent to Indiana final disposal facilities. In 1997, 30% of out-of-state waste received by Indiana facilities was sent to either MI or KY facilities for disposal. In 1998, 45% was sent out-of-state for disposal, mostly to MI or KY. Transfer station exports began decreasing in 1999, and continued through 2001, when 3% (about 1,888 tons) of out-of-state waste received was sent to other states, mostly KY but also MI and OH.

Figure 18 shows the distribution of the disposal of out-of-state waste among Indiana solid waste facilities. Of the 28 facilities that received out-of-state waste during 2001, four (14%) disposed

of 90% of that waste. Almost all the imported waste received by these four facilities was from Illinois. The other 24 facilities (86%) disposed of the remaining 10% of the imported waste.

Figure 18.
Distribution of Disposal of Out-of-State Waste Disposed at Indiana Solid Waste Facilities During 2001



(1) Percentages in the text boxes exclude facilities not taking out-of-state waste, therefore, they do not correspond exactly with percentages in Figure 10.

(2) These landfills received out-of-state waste from Indiana transfer station(s).

Table 20 summarizes the annual amount of out-of-state waste received by Indiana's solid waste facilities during 2001. Table 21 provides a detailed look at the amount of waste that these facilities received from each state.

Although Indiana imports a considerable amount of solid waste, it also exports waste, primarily to contiguous states.

A brief discussion of waste exports was provided in the previous section on solid waste processing facilities (see page 26).

"2001 Solid Waste Facility Profiles" at the end of this report provides more detailed summaries of waste imports to landfills, incinerators, and transfer stations.

Table 20.
Total Out-of-State Waste Received by Facility During 2001

County Location of Facility	Facility Name	Type of Facility	Tons of Out-of-State Waste Received
Allen	Macbeth Road Landfill	MSW Landfill	67,206
Allen	United Refuse Landfill	MSW Landfill	296
Clark	Bi-Co Transfer Station	Transfer Station	1,761
De Kalb	Merritt Processing Facility	Transfer Station	115
Elkhart	Earthmovers Landfill	MSW Landfill	3,778
Elkhart	Elkhart County Landfill	MSW Landfill	561
Fulton	County Line Landfill	MSW Landfill	220,363
Greene	Worthington Landfill	MSW Landfill	17,292
Harrison	Gray Disposal Service Transfer Station	Transfer Station	10
Hendricks	Twin Bridges Recycling and Disposal Facility	MSW Landfill	16
Henry	Hayes Landfill	MSW Landfill	12
Jackson	Medora Sanitary Landfill	MSW Landfill	1,570
Jay	Jay County Landfill	MSW Landfill	6,496
Jefferson	City of Madison Transfer Station	Transfer Station	659
Knox	City of Vincennes Transfer Station	Transfer Station	2,415
Knox	Jamax Transfer Station	Transfer Station	1,615
Kosciusko	Kosciusko Landfill	MSW Landfill	403
Lagrange	Scott Recycling & Transfer Station	Transfer Station	48
Lake	Illiana Transfer #1	Transfer Station	46,826
Lake	Illiana Transfer #2	Transfer Station	11
Lake	Munster Landfill	MSW Landfill	33,580
La Porte	Deercroft Recycling and Disposal Facility	MSW Landfill	613,270
Marion	Covanta Indianapolis Resource Recovery Facility	Incinerator	12,712
Marion	Southside Landfill	MSW Landfill	1
Newton	Newton County Landfill Partnership	MSW Landfill	647,816
Noble	Kendallville Iron & Metal Transfer Station	Transfer Station	360
Pike	Blackfoot Landfill	MSW Landfill	597
Pike	Blackfoot Resource Recovery Facility	Transfer Station	431
Pike	Velpen Solid C/D Site	Construction/Demolition Site	52
Porter	Able Disposal Recycling and TS	Transfer Station	367
Putnam	Heritage Landfill	Non-MSW Landfill	2,729
Randolph	Randolph Farms Landfill	MSW Landfill	3,220
Shelby	Caldwell Landfill	MSW Landfill	56
St. Joseph	Prairie View Recycling & Disposal Facility	MSW Landfill	1,494
Vanderburgh	Laubscher Meadows Landfill	MSW Landfill	42,598
Vanderburgh	Materials Recycling and Transfer Station	Transfer Station	2,696
Vermillion	West Clinton II C/D Site	Construction/Demolition Site	1,364
Vermillion	West Clinton Landfill	MSW Landfill	2,495
Vigo	Victory Environmental Landfill	MSW Landfill	2,144
Warren	Tri-County Transfer Station	Transfer Station	44
Wayne	Rumpke Richmond Transfer Station	Transfer Station	299
Total for All Facilities			1,739,778

Table 21.
Out-of-State Waste Received by Indiana Solid Waste Facilities During 2001

County	Facility Name	Facility Type	» » Contiguous States « « » Other« » Total « % of Total					Tons	Tons
			IL	KY	MI	OH	States		
Name									
Allen	Macbeth Road Landfill	MSW Landfill	0	0	54,653	12,553	0	67,206	3.86%
Allen	United Refuse Landfill	MSW Landfill	0	0	67	229	0	296	0.02%
Clark	Bi-Co Transfer Station	Transfer Station	0	1,761	0	0	0	1,761	0.10%
De Kalb	Merritt Processing Facility	Transfer Station	0	0	0	115	0	115	0.01%
Elkhart	Earthmovers Landfill	MSW Landfill	0	0	3,778	0	0	3,778	0.22%
Elkhart	Elkhart County Landfill	MSW Landfill	0	0	561	0	0	561	0.03%
Fulton	County Line Landfill	MSW Landfill	220,363	0	0	0	0	220,363	12.67%
Greene	Worthington Landfill	MSW Landfill	17,292	0	0	0	0	17,292	0.99%
Harrison	Gray Disposal Service Transfer Station	Transfer Station	0	10	0	0	0	10	0.00%
Hendricks	Twin Bridges Recycling and Disposal Facility	MSW Landfill	16	0	0	0	0	16	0.00%
Henry	Hayes Landfill	MSW Landfill	0	0	0	12	0	12	0.00%
Jackson	Medora Sanitary Landfill	MSW Landfill	42	97	0	1,431	0	1,570	0.09%
Jay	Jay County Landfill	MSW Landfill	0	0	0	6,496	0	6,496	0.37%
Jefferson	City of Madison Transfer Station	Transfer Station	0	659	0	0	0	659	0.04%
Knox	City of Vincennes Transfer Station	Transfer Station	2,415	0	0	0	0	2,415	0.14%
Knox	Jamax Transfer Station	Transfer Station	1,615	0	0	0	0	1,615	0.09%
Kosciusko	Kosciusko Landfill	MSW Landfill	0	0	326	77	0	403	0.02%
Lagrange	Scott Recycling & Transfer Station	Transfer Station	0	0	48	0	0	48	0.00%
Lake	Illiana Transfer #1	Transfer Station	46,826	0	0	0	0	46,826	2.69%
Lake	Illiana Transfer #4	Transfer Station	11	0	0	0	0	11	0.00%
Lake	Munster Landfill	MSW Landfill	33,580	0	0	0	0	33,580	1.93%
La Porte	Deercroft Recycling and Disposal Facility	MSW Landfill	611,772	0	1,426	0	72	613,270	35.25%
Marion	Covanta Indianapolis Resource Recovery Facility	Incinerator	4,098	525	2,194	1,695	4,200	12,712	0.73%
Marion	Southside Landfill	MSW Landfill	0	1	0	0	0	1	0.00%
Newton	Newton County Landfill Partnership	MSW Landfill	647,816	0	0	0	0	647,816	37.24%
Noble	Kendallville Iron & Metal Transfer Station	Transfer Station	0	0	317	43	0	360	0.02%
Pike	Blackfoot Landfill	MSW Landfill	478	119	0	0	0	597	0.03%
Pike	Blackfoot Resource Recovery Facility	Transfer Station	431	0	0	0	0	431	0.02%
Pike	Velpen Solid C/D Site	Construction/Demolition	0	52	0	0	0	52	0.00%
Porter	Able Disposal Recycling and Transfer Station	Transfer Station	9	0	358	0	0	367	0.02%
Putnam	Heritage Landfill	Non-MSW Landfill	2,371	212	0	0	146	2,729	0.16%
Randolph	Randolph Farms Landfill	MSW Landfill	3,220	0	0	0	0	3,220	0.19%
Shelby	Caldwell Landfill	MSW Landfill	4	43	0	9	0	56	0.00%
St.Joseph	Prairie View Recycling and Disposal Facility	MSW Landfill	0	1,494	0	0	0	1,494	0.09%
Vanderburgh	Laubscher Meadows Landfill	MSW Landfill	0	42,598	0	0	0	42,598	2.45%
Vanderburgh	Materials Recycling and Transfer Station	Transfer Station	19	2,677	0	0	0	2,696	0.15%
Vermillion	West Clinton II C/D Site	Construction/Demolition	1,364	0	0	0	0	1,364	0.08%
Vermillion	West Clinton Landfill	MSW Landfill	2,495	0	0	0	0	2,495	0.14%
Vigo	Victory Environmental Landfill	MSW Landfill	2,144	0	0	0	0	2,144	0.12%
Warren	Tri-County Transfer Station	Transfer Station	44	0	0	0	0	44	0.00%
Wayne	Rumpke Richmond Transfer Station	Transfer Station	0	0	0	299	0	299	0.02%
Total for All Facilities			1,598,425	50,248	63,728	22,959	4,418	1,739,778	

Figure 19.
Origin of Waste Disposed and Incinerated in Indiana During 2001

